

Applicant : Chinnugounder Senthilkumar et al.
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Attorney Docket 10559-650002 / P12972D

REMARKS

Below, the applicant's comments are preceded by related remarks of the examiner set forth in small bold type.

Claim 19 is rejected under 35 U.S.C. 102(b) as being clearly anticipated by Plangger et al. 4,582,434 (Plangger).

Figures 1 and 2 of Plangger provides for the claimed method steps of at least claim 19. This includes the step of generating a system time signal using a real time clock circuit composed of at least element 104 that has a tunable oscillator composed of at least element 98 for adjusting an operation frequency of the real time clock circuit. The system time signal is internal to the processor 80 (See column 7). This processor receives a reference time signal over a network. The particular network that Plangger uses happens to be the WWV network. The examiner must give the broadest reasonable interpretation to the claimed invention consistent with the specification. It is accordingly noted that applicant has not defined the term "network " in the specification and thus the common everyday definition of this term applies. Plangger clearly describes in column 8 how the variable capacitance element 98 of the tunable oscillator is controlled so as to adjust the tunable oscillator in order to increase or decrease the operating frequency of the real time clock circuit in response to a difference between the system time signal and the reference time signal.

Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Plangger et al. 4,582,434 (Plangger) in view of Clarke US 6,337,604 (Clarke).

Plangger utilizes a single adjustable capacitor namely a varactor diode 98 to vary the capacitance of the tunable oscillator that generates the real time clock signal used by the processor. Claim 20 recites a set of control signals to modify the selection of a set of capacitors within a capacitor bank so as to from a variable capacitor used in the real time clock circuit that in turn whose variations correlates to the changes in operation frequency of the real time clock circuit. As evidenced by Clarke, one art recognized variable capacitance structure that is used to control the frequency of an oscillator that is used as a clock is the plurality of independently selectable on-chip capacitors (Note elements C1-C6 and the corresponding control signal D0-D5.)

Thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to have replaced the variable capacitor with one that is composed of a plurality of capacitors each switched given the art recognized equivalence of the two capacitor arrangements as taught by Clarke.

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Neither Plangger nor Clarke discloses or suggests "generating a system time signal using a real time clock circuit that has a tunable oscillator ..., the tunable oscillator having a set of MOSFET capacitors that can be independently selected," as recited in claim 19. While Clarke discloses a bank of load capacitors C1 to C6 that is controlled by a group of control lines D0 to D5 (col. 2:22-29), Clarke is silent as to what type of capacitors to be used for C1 to C6.

It would not have been obvious to use MOSFET capacitors in a tunable oscillator because the capacitances of the MOSFET capacitors may vary with changes in the power supply voltage, and there may be leakage current from source or drain nodes to the body of the MOSFET, causing the capacitance to change. The applicant was the first to recognize that a set of MOSFET capacitors can be independently selected to adjust an operation frequency of a real time clock used for generating a system time signal.

Claim 28 is patentable for similar reasons as claim 19. The pending dependent claims are patentable for at least the same reasons as the claims on which they depend.

Canceled claims, if any, have been canceled without prejudice or disclaimer.

Any circumstance that the applicant has (a) addressed certain comments of the examiner does not mean that the applicant concedes other comments of the examiner, (b) made arguments for the patentability of some claims does not mean that there are not other good reasons for patentability of those claims and other claims, or (c) amended a claim does not mean that the applicant concedes any of the examiner's positions with respect to that claim or other claims.

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Respectfully submitted,

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** See attached document certifying that Rex Huang has limited recognition to practice before the U.S. Patent and Trademark Office under 37 CFR § 10.9(b).*

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